[Group will exit the bus in front of Building 2713-S and enter the building. There is an opportunity for a restroom break, then the group will meet in Room 131].

Welcome to the 222-S Laboratory. My name is Joe Sondag and I'll be leading the tour today. My co-leaders are Derek Wright and Pat Swann. If you have any safety-related questions or concerns, you can ask us at any time. Normally you would sign the visitor log to enter the complex but you won't need to do that today because we've provided a list.

I will now provide a safety orientation to the 222-S Laboratory complex. Each of you will have an assigned escort, either me or one of the co-leaders. In a moment I will read the names of who's assigned to which escort. You must stay with the group at all times so that your escort can keep track of you. In the event of an emergency, it is imperative to have positive accountability for everyone at the complex. In other words, we need to know if you are here, and where you are.

Please keep your visitor badge visible at all times, between your neck and your waist, so that it can be seen by personnel you may encounter in the Lab. While walking through the Lab you will see "Blue Boards" that display important health and safety information, including evacuation information and the location of fire extinguishers and first aid equipment.

When you hear an announcement coming through the building's public address system,

stop talking so everyone can hear it. If you hear an evacuation announcement, follow your escort out of the building to the appropriate staging area. Stay calm and follow directions. Do not wait to see if the alarm is “real” or take any alternate route out of the building. If you’re not sure where to go, ask someone. If you see someone in trouble, tell someone else. Do not attempt rescue on your own.

You are responsible for your own safety. Watch for activities and equipment that may pose a hazard as you move through the area. Pay attention to signs and postings that inform you of hazardous conditions. Do not cross barriers such a yellow-and-magenta rope or markings. Do not put any body parts through the vertical plane defined by such a barrier or marking – I mean, don’t lean over it. Obey all postings.

The 222-S Complex has many hazards, including insects and other “critters,” and industrial hazards such as electrical equipment, compressed gases, powered industrial trucks, confined spaces and mechanical equipment. It has radiological hazards including radiation, contamination, and radiological materials. It has chemical hazards including toxins, corrosives, irritants, oxidizers, flammable and reactive agents.

From a land line, the number to call in an emergency is 911; from a cell phone it’s 509 373-0911. However, you shouldn’t need to do this as long as you stay with your escort; your escort will make any necessary calls and direct you where to go.

We will not be answering technical questions during this tour. Please use the 3x5 cards to

write down your questions and the answers will be posted on the RFP website.

Here are some handouts to help you understand what you're looking at as we walk through the Lab. The rooms that aren't shown in color on the map are the responsibility of the TOC and the Lab Contractor has no involvement with them.

I will now read the list of who's assigned to which escort. For reasons that will be clear in a moment, female visitors will all be assigned to the same escort.

This building, 2713-S, is office space shared by the Lab Contractor and the TOC. It was built in about 2010 using ARRA funds. Next door there is more office space in another building which we will see on our way out.

Now we'll go out the back door of 2713-S and head over to 222-S to see the lab facilities.

MO-2171 is used by TOC Waste Management. 2705-S is used by the TOC RadCon organization.

This ***[222-S]*** is the main laboratory facility. We've already provided your names so there's no need to sign in. Back here is the office for the TOC facility manager. We'll be entering the main part of the facility through the locker rooms. Please follow your escorts and we'll meet up in front of room 5AB.

[In front of 5AB]. We're starting in the part of the building where the analyses are performed, later we'll see where samples enter the lab.

5AB is used for standards and reagents preparation. Chemicals are stored here. Here is where most chemical management work is performed, including receipt of new chemicals, inventory, management, and disposition of excess. They also analyze industrial hygiene vapor tube samples here.

4E is a Treatment Storage and Disposal facility operated by the TOC.
4D is used for preparation of standards and reagents. It is a non-radiological lab. It was renovated in 2010 using ARRA funds and equipment was updated at that time.

Past this rope there are several rooms: 4A is inorganic chemistry, 4B is radiochemistry separation, 4C is both inorganic and organic chemistry.

These refrigerators in corridor 8E are managed by the Lab Contractor and are used for storage of samples.

Between corridors 8G and 8F, are four additional lab rooms that perform radiochemistry development, inorganic chemistry, radiochemistry separation, and organic chemistry, these rooms are used by the Lab Contractor primarily, with TOC coming in to do maintenance and equipment checks, as they do for virtually all of the laboratory rooms.

Room 5F holds the Access Control Entry System, known as ACES, which verifies that workers have the training required to enter radiological areas.

You can see into room 4M through these windows. The list you have shows which equipment is in this room.

We can't go down corridor 8G because it's a radiological area but you can see here the main step-off pad where workers do hand and foot surveys as a good laboratory practice although it’s not required prior to removing their anti-contamination protective clothing. After removing clothing, people coming off of the step-off pad are scanned by ARGOS or PCM monitors.

Now we'll go to room 4TUV and look through the window and door. We won't go inside because it's too small. It's used for organic analysis.

Now we go down corridor 8H. You can see through the window of room 4S that it is currently vacant.

The TOC uses room 4QR; the Lab Contractor does not use this room.

Here is room 4P, also used by the TOC.

Room 4N is used for radioactive standards preparation.

Coming around the corner you'll see a room with no label on it; this is 3B1 where workers don anti contamination clothing and continue into radiological areas. Doffing takes place in corridor 8G which you saw earlier.

Beyond room 3B1 is room 3B which is the lab leader's office where the TOC has monitoring systems for detecting leaks, fires, and ventilation system faults. Keys are issued from here. Building announcements are made from here and the log book is kept here.

[Corridor 8D by the map] Room 3C is the stock room. In a moment we'll go in and take a look. First I want to show you on this map ***[hanging on the wall]*** some rooms which we can't enter because they are radiological areas, but you'll be able to see a little from a window inside the stock room.

[Corridor 8D by the map] If you look through that window across the corridor that's beyond you'll see room 2B where the majority of the daughter tank samples are stored. The parent tank samples are stored in hot cell 11-A which we'll see later. Some daughter samples of tank waste are kept in storage cabinets in 2B because of dose, and some refrigerated samples are kept in the refrigerators you saw earlier and also in room 2B. Room 2B is shared between the two contractors. This is also where liquid analytical waste is disposed of.

[Corridor 8D by the map] Also beyond the stock room window and not visible from the window are rooms 1J, 1K, and 1L which are inorganic chemistry labs. These rooms are in another section of the lab accessed by means of an air lock. 1L is getting a new custom hood installed for ICP-MS, work to be completed in the FY15 timeframe. Room 1GB is currently vacant for room upgrades. Room 1C has two glove boxes: one is used for high alpha activity breakdown of samples and digest. The other glove-box is used for storage. Room 1B is for digestion chemistry and fusions.

Now you can go into the stockroom, see what's there, and look through the window. Be aware of the radiological boundary at the window and don't learn over the yellow and magenta markings. Please be considerate of others and have just a quick look, then come out and meet up here by the elevator.

Now we'll go down to the basement into a small hallway where there is access to several rooms. We'll have a quick look into those rooms then come back up.

[Repeat as needed as people filter through the space] Rooms B1-A and B1-F are radiochemistry counting rooms. Room B1-E is used for storage of standards. B1-B is used by the TOC. There's a dumbwaiter in room B1-A for transfer of materials between floors.

[Back up the stairs]. We'll exit the building through the TOC's maintenance area. If you need to use the restroom, there's a men's room here. Women, if you need to use the

restroom, your escort can take you back there.

This maintenance annex is used by crafts workers employed by the TOC. There's a meeting room here which Lab contractor personnel might come to occasionally.

Now we'll exit the building and go counterclockwise around the outside.

Generally speaking, the equipment and facilities you see around the 222-S Building are support facilities and are the responsibility of the TOC except where noted.

Door 27 leads to an area where you can see the 11-A hot cell lab. In the 11-A hot cell lab workers must wear thermo luminescent dosimeters. They don't wear anti contamination clothing except when directly loading samples in or out, and when unpacking tank waste samples from the shipping containers.

The space is tight and so visitors will go in in groups of three. Note that this is an airlock and only one door can be open at a time to maintain negative pressure inside the 11-A hot cell lab. You can look at the room for one minute, then come out and allow the next group of three to come in. One escort will be in the room and another in the airlock to ensure your safety.

Do not lean over the yellow and magenta markings on the floor.

[Continuing counterclockwise around the main lab building]. Door 29 is at the loading dock where tank waste samples are received.

Door 10 is also used for sample receipt.

Door 13 is used for receipt of non-tank samples such as vapor tubes.

We will go into this building, 222-SH, which is used for chemical and flammable material storage, non-rad samples, lab waste, and hazardous materials. Inside you may see some vapor tubes that recently were received at the Lab. We'll go in the south door and out the north door, so please keep moving forward.

The last thing we'll see on the tour is building 2704-S, which is an office building shared by the Lab Contractor and the TOC. There is a restroom there if you need it. We'll walk through and exit the other side to get back on the bus.

We hope you found this tour informative. If you have questions, please write them on the cards and give them to Chris Lockhart. Thank you for your interest in Hanford.